IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:	Paul Adams *et al.*	Group Art Unit:	3753
Application No.:	10/629,006	Examiner:	Kevin L. Lee
Filed:	July 29, 2003	Attorney Docket No.:	BIC-016
For:	Fuel Cartridge with Connecting Valve		

DECLARATION OF PAUL ADAMS UNDER 37 C.F.R. § 1.131

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I, Paul Adams, having personal knowledge of the facts set forth herein, hereby declare and make the following statements:

1. I reside at 21 Perry Drive, Monroe, Connecticut 06468.

2. I received a Bachelor of Engineering Degree in Mechanical Engineering in 1987 from The City College of New York (C.U.N.Y.) and a Master of Science in Management Degree in 1998 from Rensselaer at Hartford (Rensselaer Polytechnic Institute)

3. I am a co-inventor of the invention disclosed in the above-referenced United States patent application no. 10/629,006 ("the '006 patent application"), which is known to me as the BIC-016 case.

4. I was employed by BIC USA, Inc., or a related company, are subsidiaries of SOCIÉTÉ BIC, from 1992 to 2005. My last position with BIC USA, Inc. was Director – Lighter R&D and Manufacturing - North America.

5. I am currently working as the Vice President of Research & Development for

Unger Marketing International.

6. I conceived the invention as claimed in the above-referenced '006 patent application on or about February 18-19, 2003, or earlier, as evidenced by Invention Disclosure Form ("IDF") No. 03-0013-78 (attached and marked as **Exhibit A**), which includes a set of handwritten drawings (Ex. A, pages 9-13).

7. On February 18, 2003, I sketched the first two handwritten drawings depicted on Ex. A, page 9 which are the predecessors of FIGS. 1(a)-1(c), at least, of the above-referenced '006 patent application.

8. On February 19, 2003, I sketched the third handwritten drawing depicted on Ex. A, page 9, which is the predecessor of FIGS. 2(a) and 2(b), at least, of the above-referenced patent application.

9. On March 15, 2003, I sketched the other handwritten drawings, depicted on Ex. A, pages 10-13, to provide greater detail of the initial drawings sketched on February 18, 2003 and on February 19, 2003.

10. On Mach 17, 2003, I completed IDF No. 03-0013-78 (as evident by my signature on Ex. A, page 6), which was sent by Federal Express on March 18, 2003 to BIC Corporation's patent attorney H.T. Than, Esq. (as evident by the letter on Ex. A., page 1), who read and understood IDF No. 03-0013-78 on March 19, 2003 (as evident by Mr. Than' signature on Ex. A, page 2).

11. On April 3, 2003, I received two e-mails (attached and marked as **Exhibit B**) from Mr. Than concerning selected patent references uncovered by a patentability search (attached and marked as **Exhibit C**) that he had previously commissioned.

12. On May 7, 2003, I received a first draft of the patent application, including informal drawings, from Mr. Than as evident by an e-mail sent from Mr. Than to me (attached and marked as **Exhibit D**).

13. Beginning on May 9, 2003, I sketched a series of additional handwritten drawings (attached and marked as **Exhibit E**) that further define embodiments of the invention. On or about May 9, 2003, I sketched the handwritten drawings that

appear on pages 2 and 3 of Ex. E. On or about May 24, 2003, I sketched the handwritten drawings that appear on pages 4-7 of Ex. E. On or about May 25, 2003, I sketched the handwritten drawings that appear on pages 8-11 of Ex. E.

14. On June 9, 2003, I received a second draft of the patent application, including informal drawings, from Mr. Than as evident by an e-mail sent from Mr. Than to me (attached and marked as **Exhibit F**).

15. On June 30, 2003, I received a third draft of the patent application, including informal drawings, from Mr. Than as evident by an e-mail sent from Mr. Than to me (attached and marked as **Exhibit G**).

16. On July 25, 2003, I received a fourth draft of the patent application, from Mr. Than as evident by an e-mail sent from Mr. Than to me (attached and marked as **Exhibit H**). On the same day, I reviewed the fourth draft and instructed Mr. Than to file the application, as evident by an e-mail I sent to Mr. Than (attached and marked as **Exhibit I**), who then filed the application on July 29, 2003, as evident by the signed Utility Patent Application Transmittal (attached and marked as **Exhibit J**).

17. Additionally, independent from the preparation and drafting of the patent application, my group of engineers and designers at BIC also prepared detailed computer design of the valve, as evidenced by a set of engineering drawings (attached and marked as Exhibit K). One engineering drawing carries a date of 29-May-2003. (**Exhibit K,** page 3).

18. On or about June 17, 2003, another set of engineering drawings showing the opening and closing sequences of the valve was sent to Mr. Than, which became FIGS. 7(a)-(c) of the patent application. (**Exhibit L**).

19. On or about August 29, 2003, the engineers under my supervision ordered certain parts of the valve to be fabricated by a purchase order (attached and marked as **Exhibit M**), to the Hannes Precision Industry, Inc. to fabricate certain parts relating to the invention.

I declare further that all statements made herein of my own knowledge are true; that all

statements made herein on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Date: 28-SEP-2008

By: 

Paul Adams

VIA FEDERAL EXPRESS

March 18, 2003

H. T. Than, Esq.
Sutton Executive Center
3201 New Mexico Avenue, N.W., Suite 350
Washington, D.C. 20016

Re: New Patent Application, IDF No. 03-0013-78
Direct Methanol Fuel Cell Shut-off Valve

Dear H.T.:

Enclosed is a copy of the above referenced Invention Disclosure and related drawings.

As we discussed, kindly initiate a patentability investigation with respect to this technology.

I look forward to discussing the timeline on this investigation with you.

Very truly yours,

BIC CORPORATION

Cheryl A. DuBois
Assistant General Counsel

CAD/haf

Enclosures

Invention Disclosure Form ("IDF") NO. 03-001378
(Number will be assigned by the Legal Department)

Prepare only an original copy and send it to the Legal Department immediately after completion. Inventor(s) and witnesses must date and sign disclosure, and initial each page. Your Department Manager must sign off before it is sent to the Legal Department.

The invention described herein has been conceived by the undersigned in the employment of BIC.

I. TITLE OF INVENTION: *(A short phrase that highlights the important characteristics of the invention.)*

DMFC Shut-off Valve

II. NATURE OF THE INVENTION: *(If drawings are necessary, submit copy and refer to drawings in the description by numbers. If space provided below is not sufficient, attach additional sheet(s) as required.)*

A. Object Of The Invention: *(Problem solved by the invention. What it is intended to provide or accomplish.)*

DMFC Shut-off Valve – A valve design to minimize the leakage of fuel at separation + manufacturability + reduce number of parts + can be used for pressurized or non-pressurized

B. Advantages/Benefits Of The Invention: *(State how and to what extent the invention overcomes prior difficulties, e.g., lower cost, improved performance, etc.)*

Minimal volume of fuel that can be released (leakage) during insertion/extraction.

Inventor's Initials: _____

Witnesses' Initials: Read & understood by

3-19-03

C. Novel Features Of The Invention: *(Manner in which the invention differs from prior approaches to the problem.)*

Reliable, very little volume created when mated (that could potentially leak or be released during un-mating and minimal number of parts. Same valve could be used for non-pressurized or pressurized DMFC designs. Can control which seals first by combining a stop on one side and then adjust spring forces to adjust how the valve seals to minimize volume (see bottom of page 4).

D. Detailed Description Of The Invention: *(State how, where and to what extent the invention will be used. Describe how it operates, how it achieves its advantages.)*

Series of different valve designs (see attached drawings). Drawings shown in unmated and mated conditions. Each side has one spring, one moving piece (pin), and most only have one seal

E. Best Mode: *(Identify and describe the most preferred way of carrying out the invention.)*

Best mode (pages 2 & 4) – Each side of valve only has one spring, one moving piece (pin), and one seal with minimal volume that can be released during un-mating to allow flow.
In addition, bottom of page 2 shows pins with grooves to allow flow but minimize volume.

F. Alternative Embodiments:

Different combinations of seals and geometry of valves.

Inventor's Initials: _____

Witnesses' Initials: _____

III. INFORMATION RELATING TO THE CONCEPTION OF THE INVENTION:

A. Date Of The Invention: *(The earliest date or dates on which the essential features of the concept were first thought of.)*
18-Feb-03

B. Date(s) Of First Disclosure(s) Of The Invention To Others And Identity Of Persons To Whom Disclosed:
Mar-03

C. Written Documents Showing The Initial Concept(s): *(Specify date and location of documents, attach copies if convenient. List here the notebooks, reports and other sources containing the original entries upon which this Memorandum of Invention is based.)*
See attached drawings

IV. INFORMATION RELATING TO REDUCTION TO PRACTICE

A. Date(s) On Which Steps Were Taken To Embody The Invention In Workable Form And A Brief Description Of The Steps Taken And Results Achieved:
None as of yet

B. Identity And Location Of The Documents Showing The Steps Taken In Connection With Reducing The Invention To Practice:

C. Person(s) With Knowledge Of The Steps Taken To Reduce The Invention To Practice:

Inventor's Initials: _____

Witnesses' Initials: _____

V. POSSIBLE PRIOR ART: *(Related information known to you, whether patents, products or printed publication [e.g., journal articles, treatises and dissertations] that was publicly available prior to either the conception or reduction to practice of the invention and that is addressed to the same issues as the invention.)*
BIC Lighter valve (sealing portion)

VI. PUBLIC DISCLOSURE OF THE INVENTION:

Date And Brief Description Of Earliest Oral Or Written Presentations Describing The Invention Outside The Company:
None

VII. RIGHTS CLEARANCE

Name(s) Of Others Outside The Company With Whom You Collaborated Relating To Either The Conception Of The Invention Or Its Reduction To Practice:

INVENTOR(S): (*Person(s) who made a meaningful contribution to the concept embodied in the invention. Identify the primary contact person with a "X".)*

Inventor's Name: Adams (*Last Name*) Paul (*First Name*) H (*Middle Initial*)

Citizen of: _____ (*Country*)

Residence: _____ (*Number and Street*)

_____ (*City or Town*) (*State*) (*Zip Code*)

Signature of Inventor: _____ 17-MAR-03 (*Date*)

Identify Contribution: _____

_____

_____

Co-Inventor's Name: _____ (*Last Name*) (*First Name*) (*Middle Initial*)

Citizen of: _____ (*Country*)

Residence: _____ (*Number and Street*)

_____ (*City or Town*) (*State*) (*Zip Code*)

Signature of Co-Inventor: _____ (*Date*)

Identify Contribution: _____

_____

_____

Inventor's Initials: _____

Witnesses' Initials: _____

Co-Inventor's Name: _____
(Last Name) *(First Name)* *(Middle Initial)*

Citizen of: _____
(Country)

Residence: _____
(Number and Street)

_____
(City or Town) *(State)* *(Zip Code)*

Signature of Co-Inventor: _____
(Date)

Identify Contribution: _____

_____

_____

WITNESSES:

I hereby attest that the above-described invention has been thoroughly explained to me and is fully understood by me.

Signature of Witness: _____

Name of Witness: _____
(Printed Name) *(Date)*

I hereby attest that the above-described invention has been thoroughly explained to me and is fully understood by me.

Signature of Witness: _____

Name of Witness: _____
(Printed Name) *(Date)*

All signers of this Invention Disclosure recognize that the contents are strictly confidential and must not be revealed in any way, except as specifically authorized by BIC.

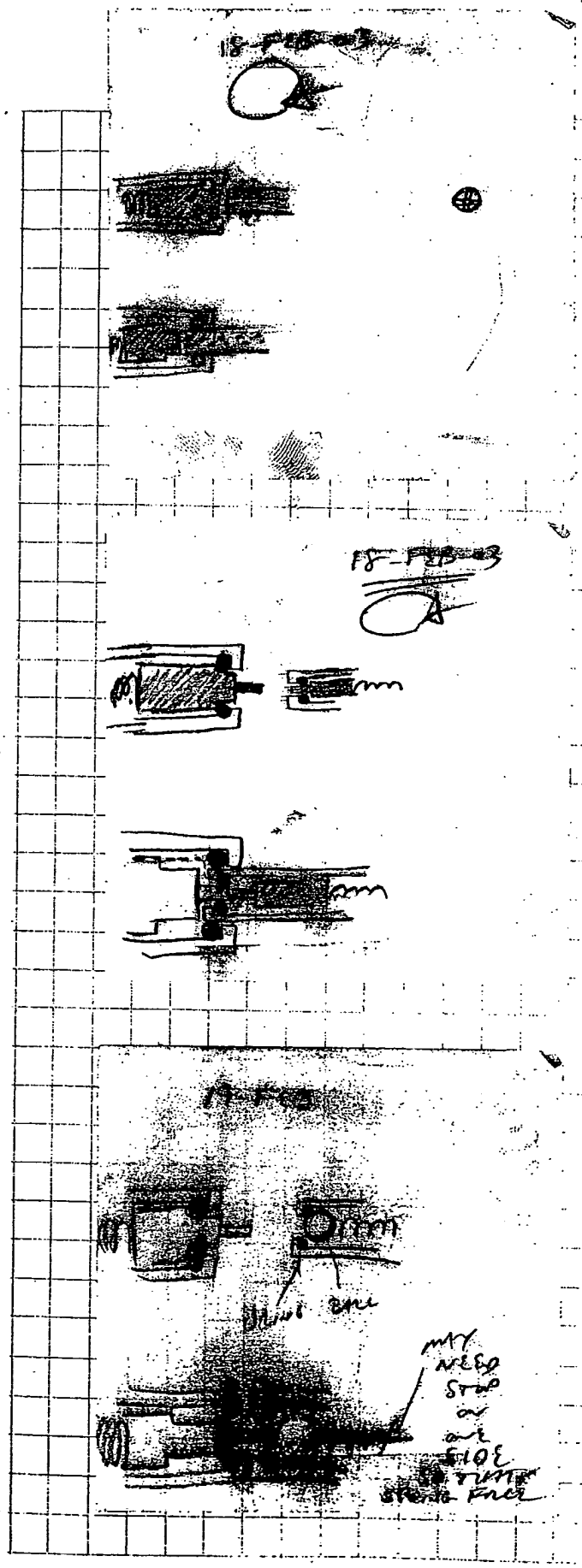
Department Management's Initials: _____

Inventor's Initials: _____

Witnesses' Initials: _____

Invention Disclosure - Additional Sheet

PAGE 1

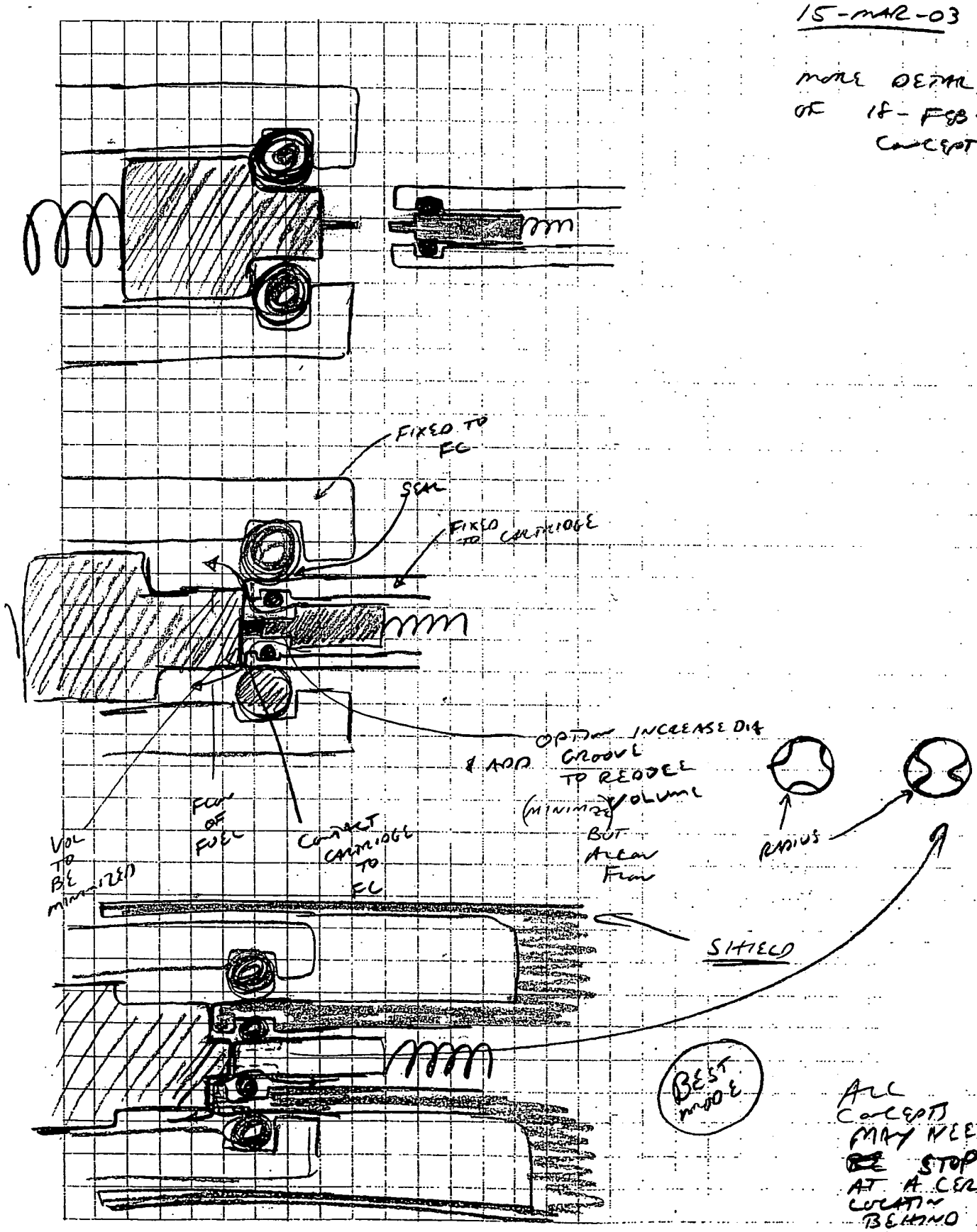


PREFERRED - ORIGINAL

PAGE 2

15-MAR-03

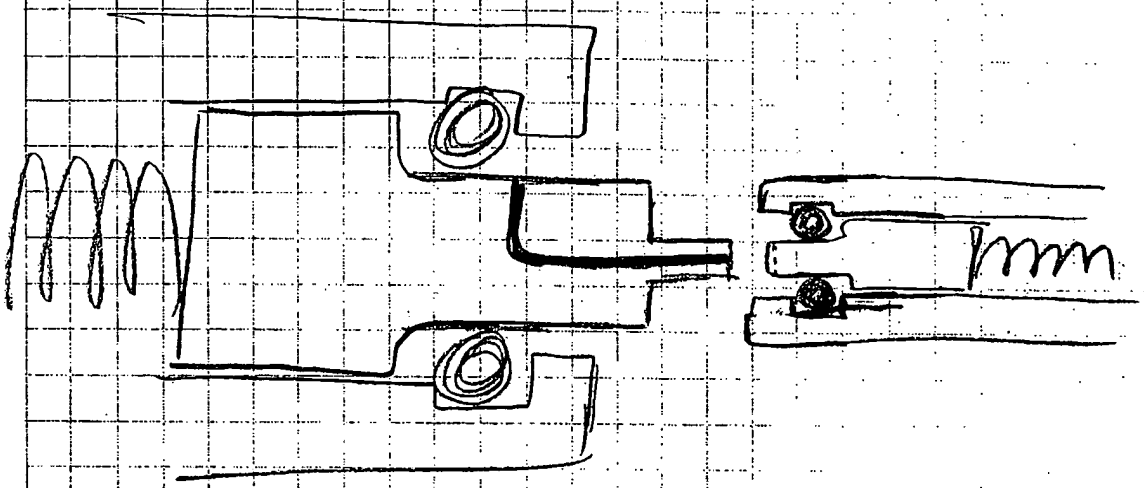
MORE DETAIL OF 18-FEB-03 CONCEPT

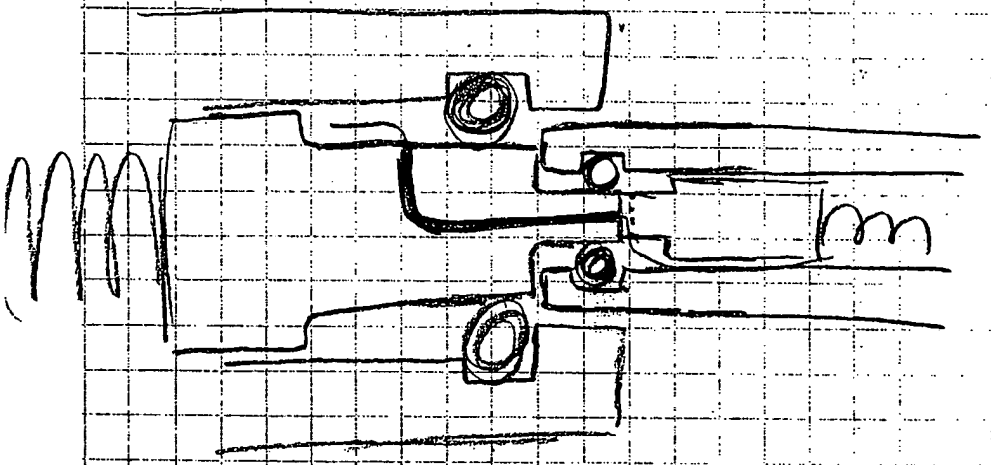


ALL CONCEPTS MAY NEED ~~BE~~ STOP AT A CERTAIN LOCATION BEHIND PINS

15 MAR-03

MORE DETAIL OF 18-FEB-03



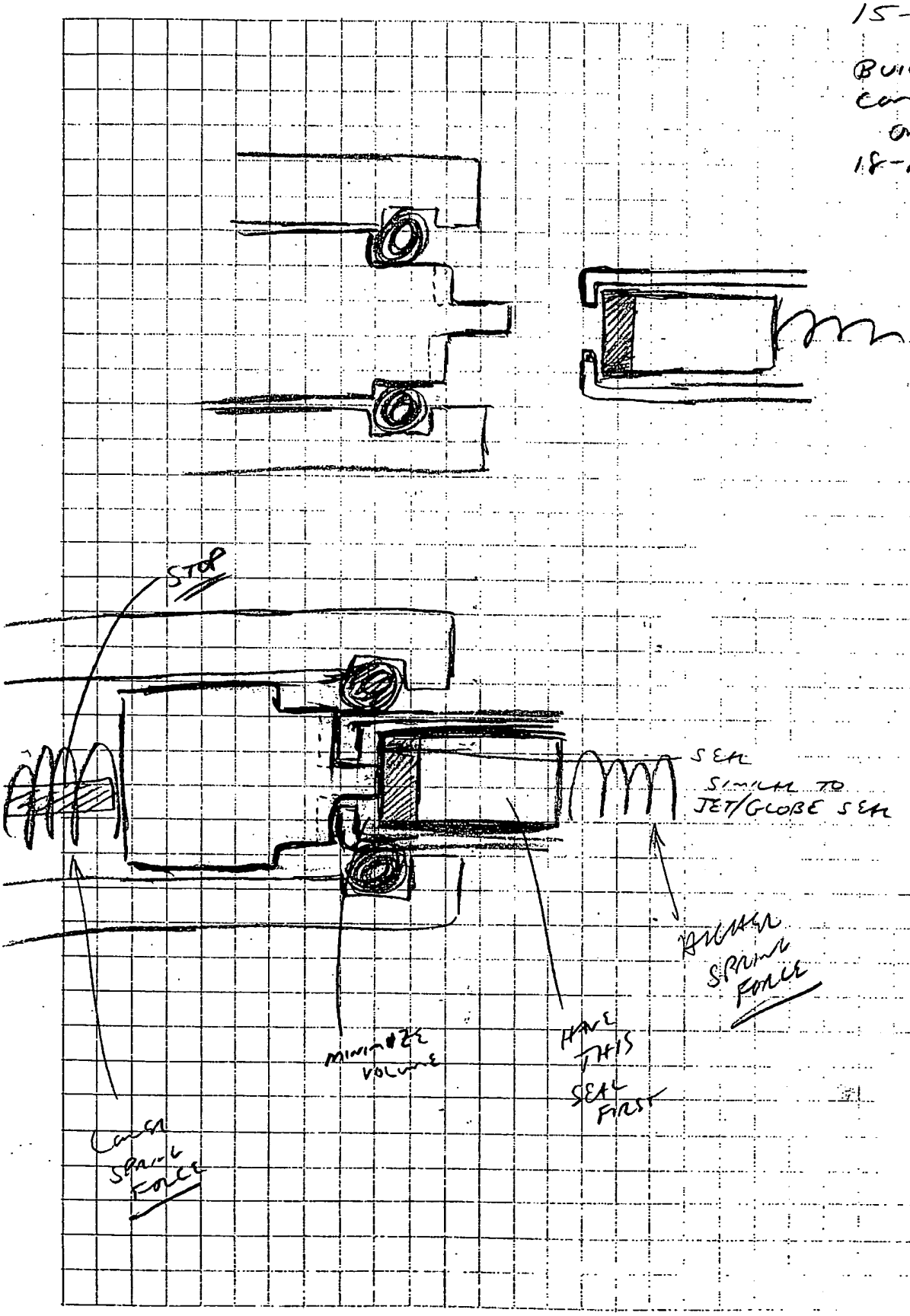


PREFERED
1-O RING
1-SEAL

A

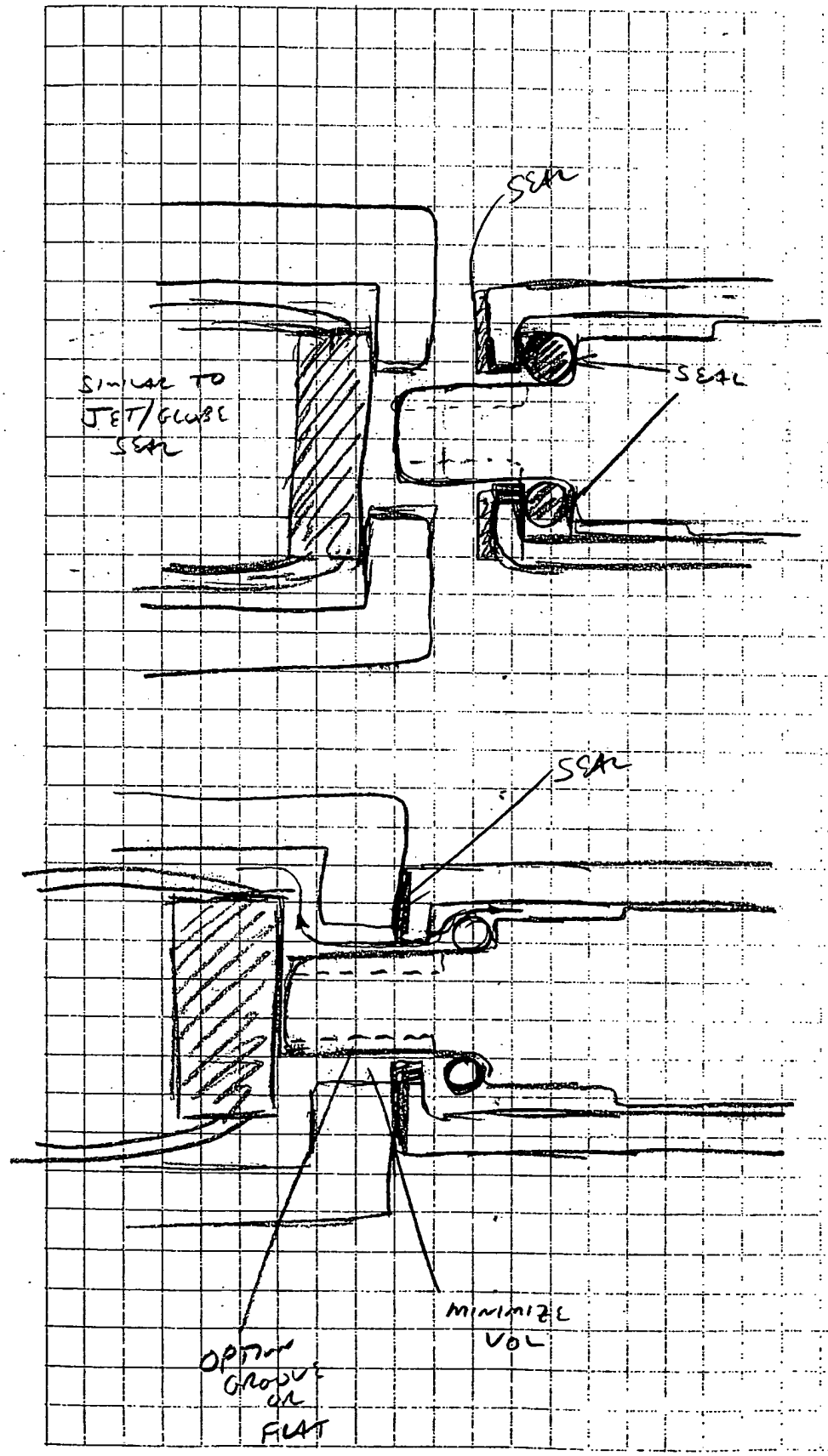
15-MAR-03

BUILT FROM
CONCEPTS
ON
18-19 FEB-03



15-MAR-03

BUILT FROM CONCEPTS ON 18 & 19-FEB-03



H.T. Than

From: "H.T. Than" <ht@htthan.com>
To: "Paul Adams" <Paul.Adams@bicworld.com>
Cc: "Cheryl Dubois" <Cheryl.Dubois@bicworld.com>
Sent: Thursday, April 03, 2003 8:55 PM
Attach: REDACTED
Subject: BIC-016 Shut-off valve

Hi Paul,

Further to your phone conversation, I am attaching herewith selected patent references uncovered by our prior art search.

REDACTED

H.T. Than

From: "H.T. Than" <ht@htthan.com>
To: "Paul Adams" <Paul.Adams@bicworld.com>
Sent: Thursday, April 03, 2003 8:57 PM
Attach: REDACTED
Subject: the other two patents

INTERNATIONAL PATENT STRATEGIES patent searching and drafting
20 EAST DIAMOND AVENUE, SUITE 27
GAITHERSBURG, MARYLAND 20877
WIRELESS : 202.438.5378
LANDLINE : 240.632.9422
FACSIMILE : 240.632.2837
ELECTRONIC MAIL: ipkiller@bellatlantic.net
ip.drafter@verizon.net

March 25, 2003.

Mr. H.T. Than, Esquire
The H.T. Than Law Group
Sutton Executive Center, Suite 350
3201 New Mexico Avenue, N.W.
Washington, DC 20016

Re: Patentability Investigation for
Fuel Cell Fuel Cartridge Outlet Valve
CMN: BIC-016 / IPSN: 030319-1

Dear H.T.:

Pursuant to your request received by facsimile, March 19, 2003, a patentability search was undertaken to uncover any U.S. patents or applications on file related to the fuel cell fuel cartridge outlet valve as we discussed.

REDACTED

H.T. Than

From: "H.T. Than" <ht@htthan.com>
To: "Cheryl Dubois" <Cheryl.Dubois@bicworld.com>; "Paul Adams" <Paul.Adams@bicworld.com>
Sent: Wednesday, May 07, 2003 8:29 PM
Attach: FUELCARTRIDGE WITH CONNECTING VALVE -- first draft.pdf
Subject: BIC-016 first draft

Cheryl, Paul:

Attached for your review is the first draft of the patent application entitled "Fuel Cartridge with Connecting Valve" (Our Ref. BIC-016). This case is also known as the shut-off valve case. Please note that the claims are written in short-hand for easy reading. The informal drawings are attached at the end of the document.

REDACTED

FAX TRANSMITTAL

If there is a problem with this transmittal, please call the number below.

Date:	03-Jun-2003		
Total Pages:	5 including cover		
Deliver to:	H.T. Than Attorney at Law	***Telephone:***	202-363-2620
		Facsimile:	202-363-3490
From:	Paul Adams	***Telephone:***	203-783-2652
		Facsimile:	203-783-2213

Message:

Following our conversation.

Exhibit E, Page 2

9-MAY-03

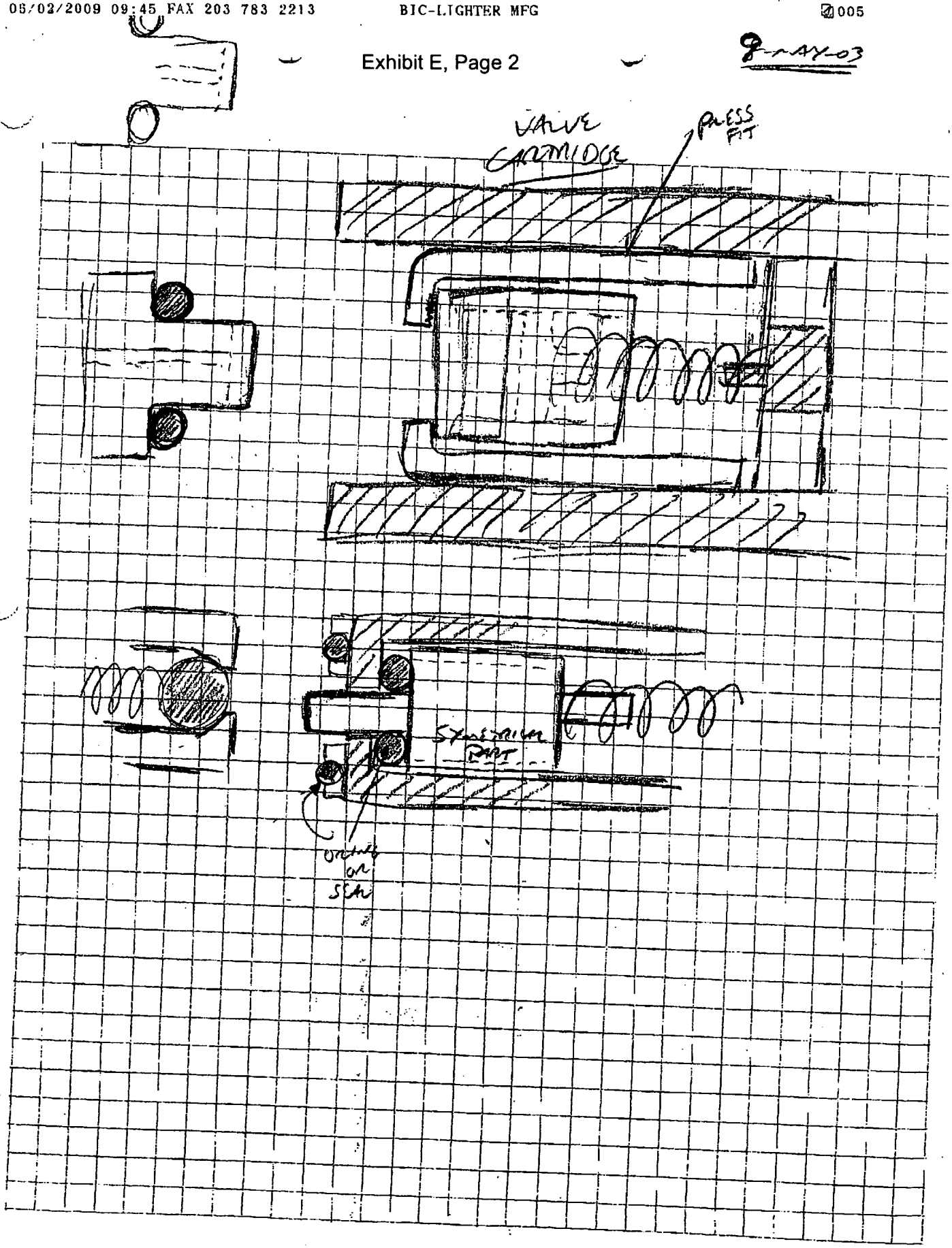
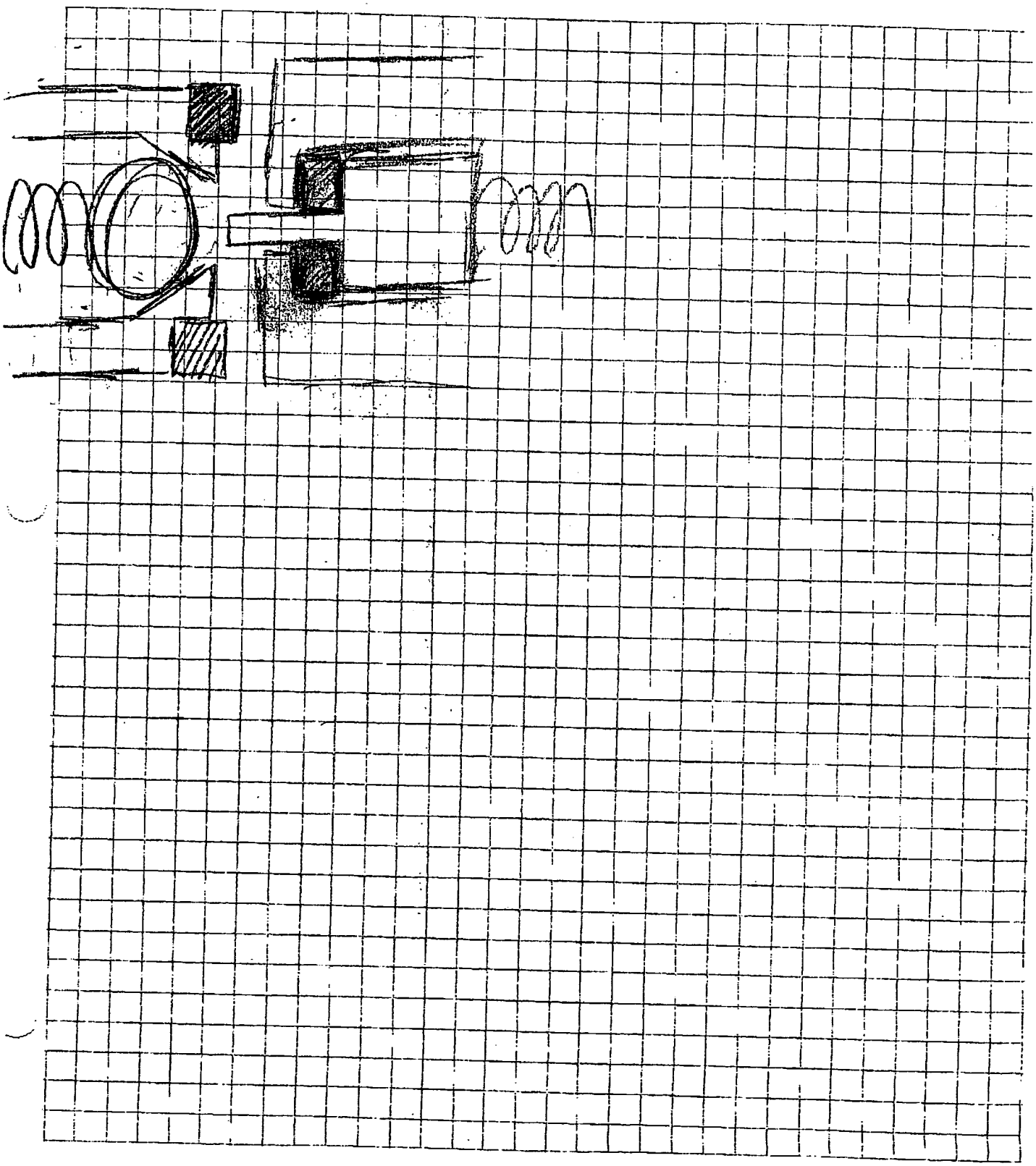
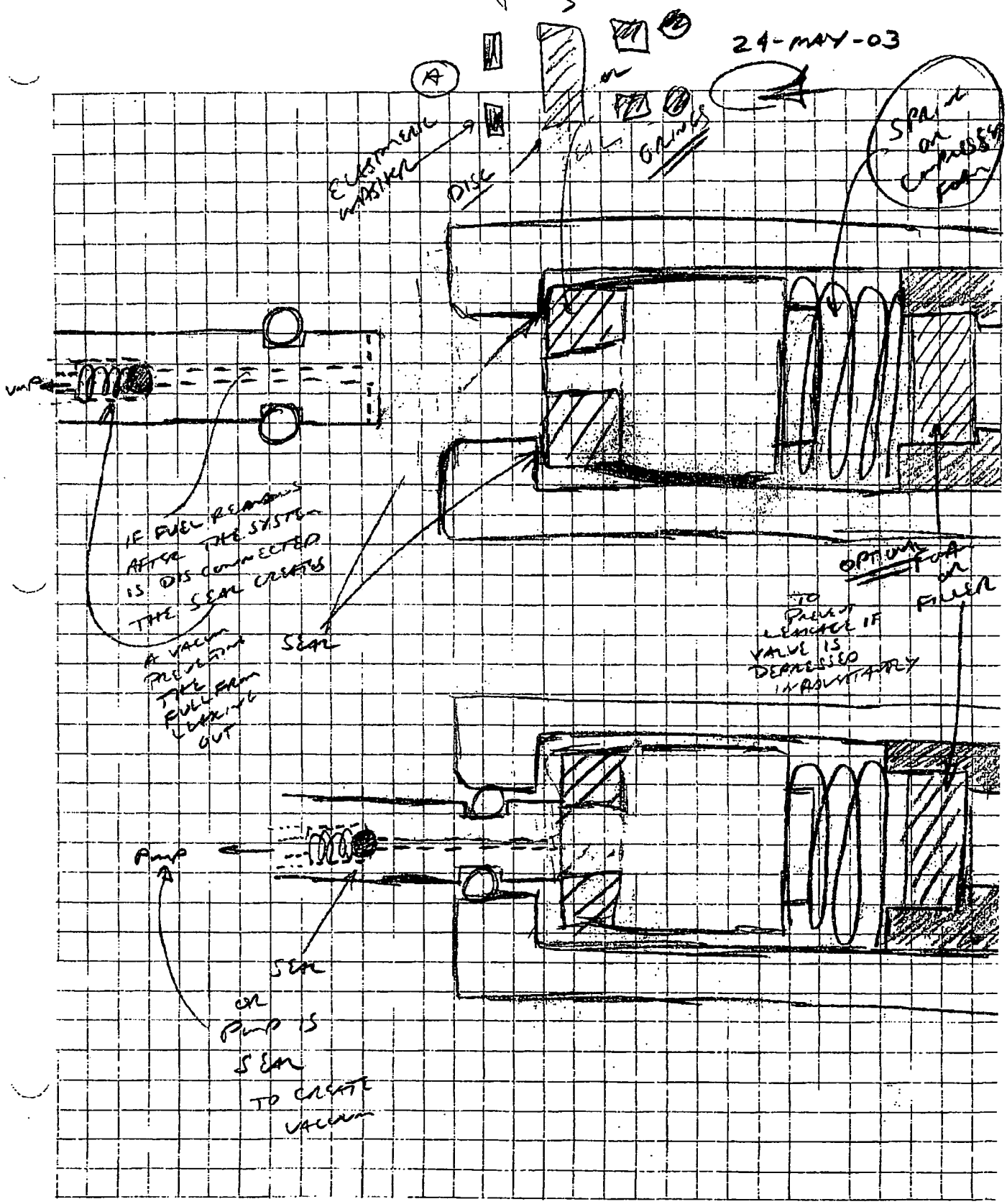


Exhibit E, Page 3

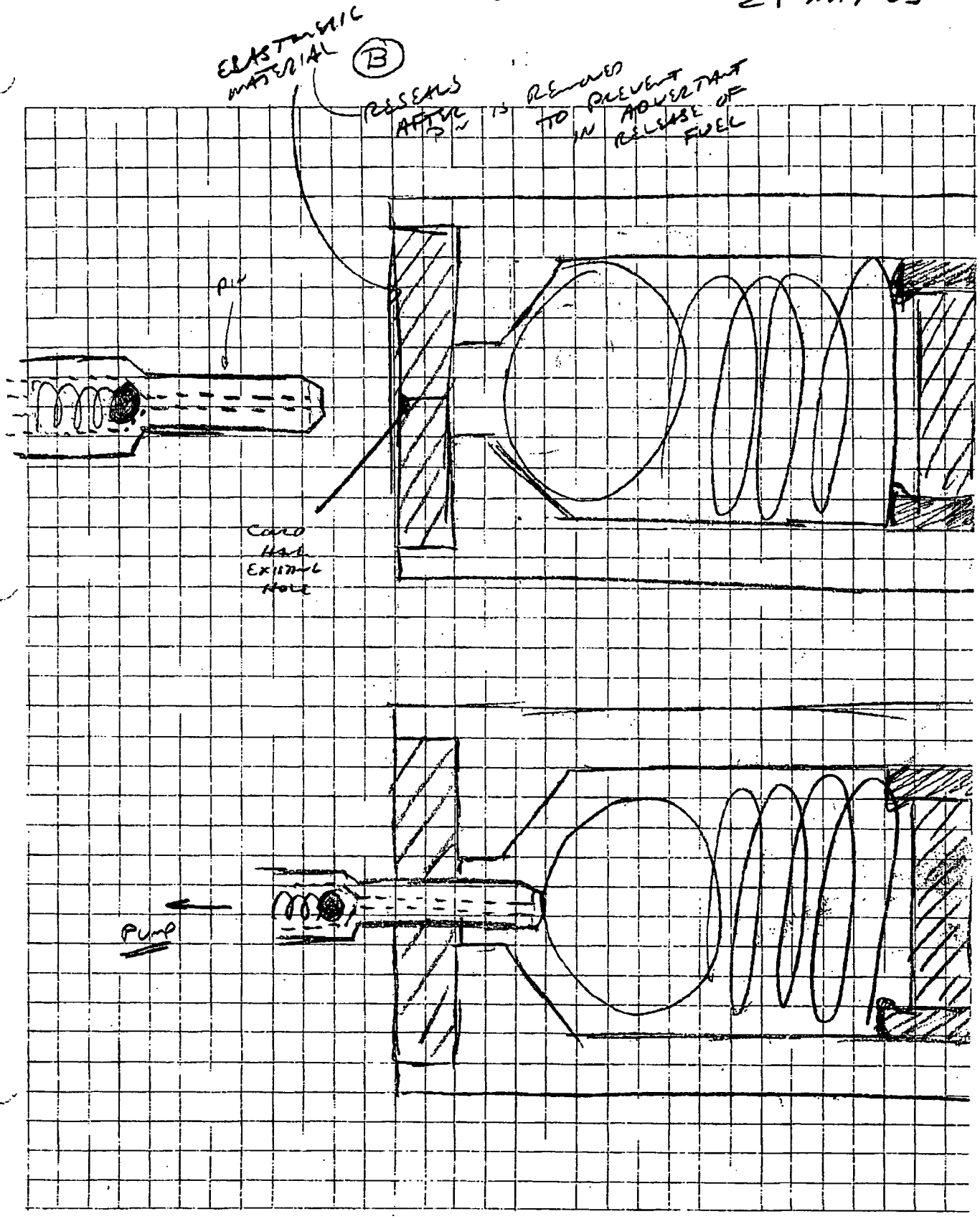
7-MAY-03

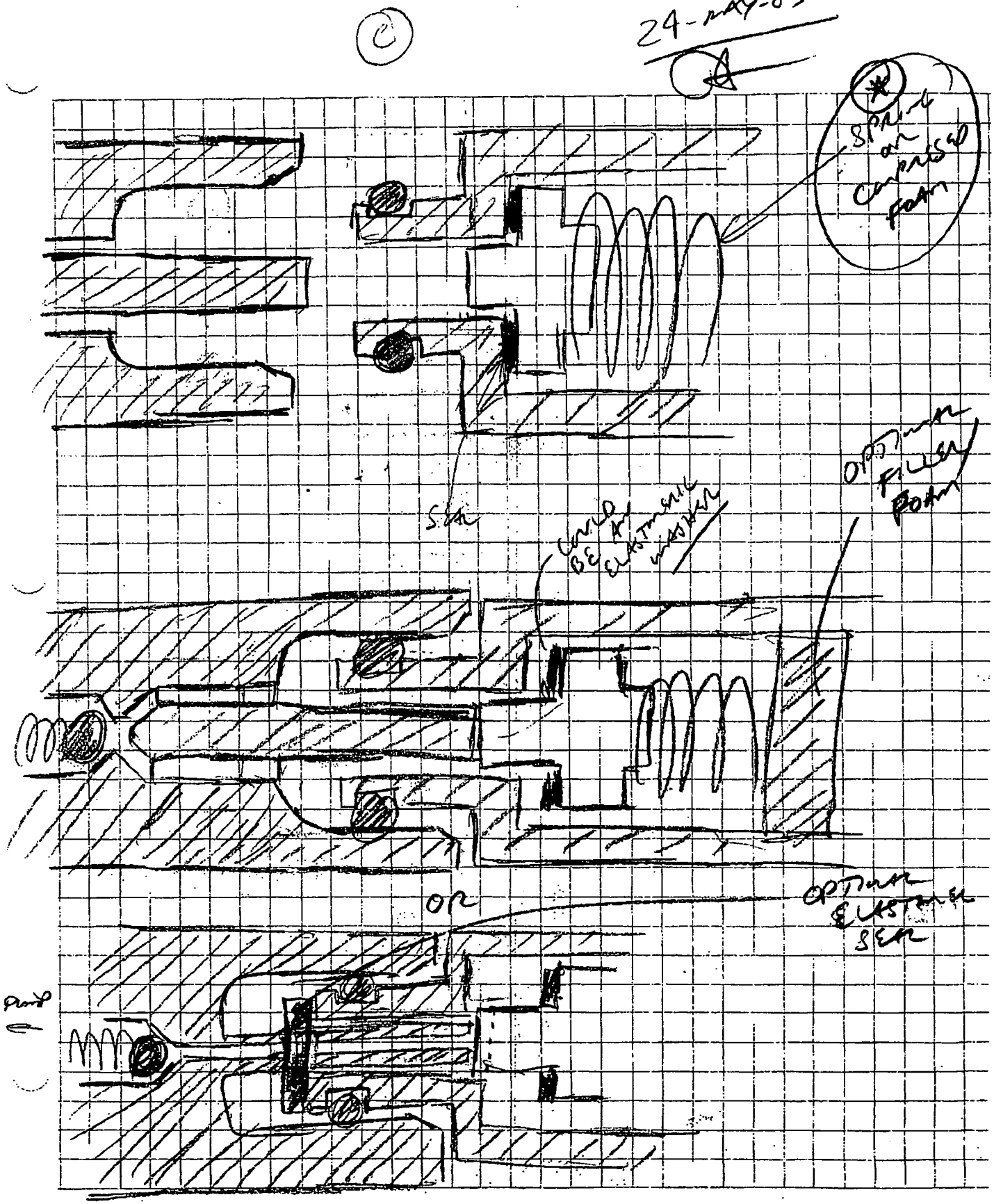


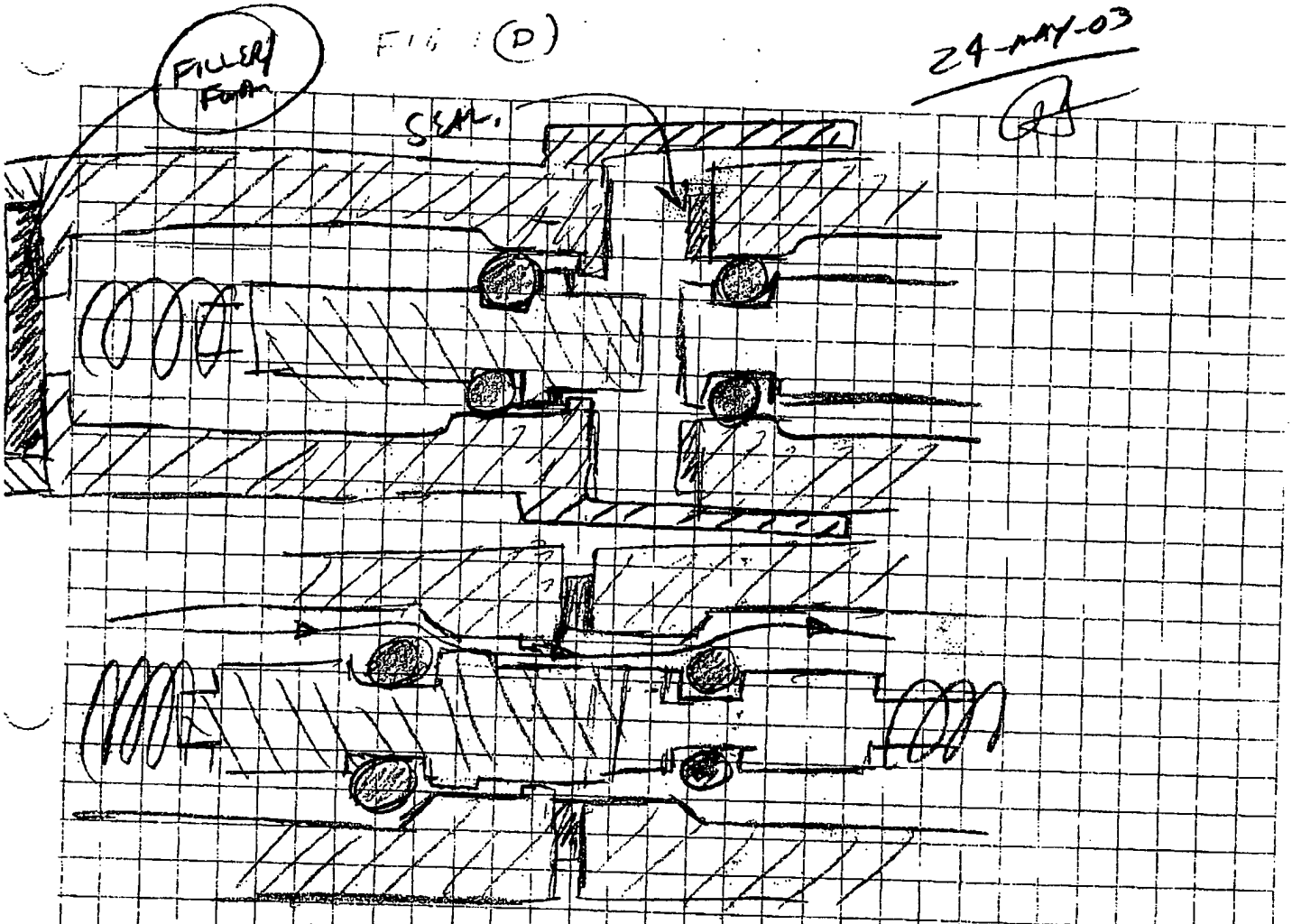

POSSIBLE SEALS
24-MAY-03
A
ELASTOMERIC WASHER
DISC
O-RINGS
SPRING
PUMP
IF FUEL REMAINS AFTER THE SYSTEM IS DISCONNECTED THE SEAL CREATES A VACUUM PREVENTING THE FUEL FROM FULLY LEAKING OUT
SEAL
OPTIONAL SEAL OR FILLER
TO PREVENT LEAKAGE IF VALVE IS DEPRESSED INADVERTENTLY
PUMP
SEAL OR PUMP IS SEAL TO CREATE VACUUM

REDACTED

24-MAY-03

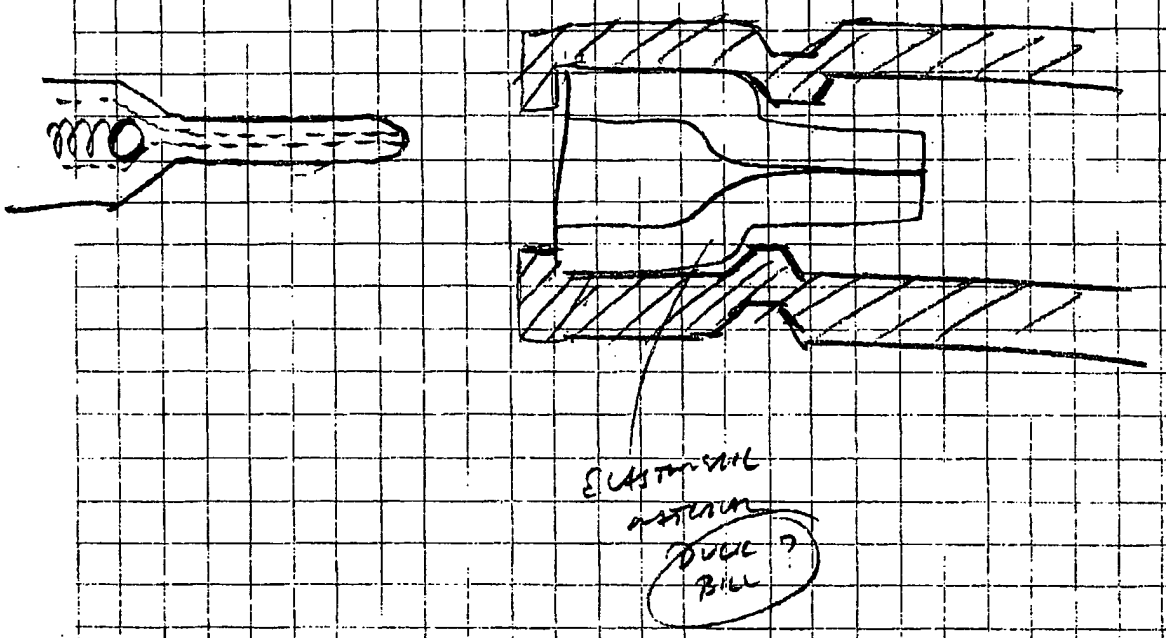

ELASTOMERIC MATERIAL
B
PASSAGE WAY IS CLOSED TO PREVENT INADVERTANT RELEASE OF FUEL
AIR
Cone Shaped Exiting Hole
PUMP


24-MAY-03
SEAL
OR
OR
OR


FILLER FOAM
FIG : (D)
24-MAY-03

(E)

25-MAY-03



(F)

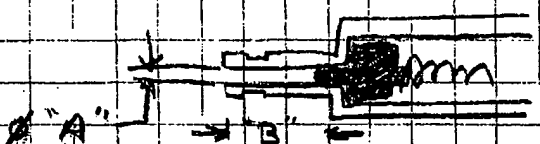
25-MAY-03

REDACTED

SECTION OF IN ADVERTENT RELEASE OF FUEL

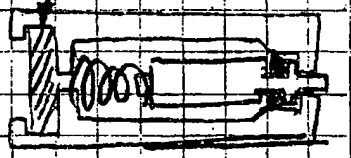
- VALVE OR SHELL COULD BE DESIGNED SUCH AS TO PREVENT THE ACCIDENTAL RELEASE OF FUEL THE FOLLOWING DESIGNS MAY BE USED IN COMBINATION OR BY THEMSELVES.

1) RECESS (Pg C) page C



- AS DESIGNED A PERSON COULD NOT DEPRESS THE SEALING PORTION OF THE VALVE TO RELEASE FUEL BECAUSE OF DIA "A" & DEPTH "B" ARE SIZED SUCH THAT NO FINGER Finger COULD REACH THE SEALING PORTION

2) FILLER/FOAM INSERT (Pg D)



- AS DESIGNED A PERSON COULD DEPRESS THE SEALING PORTION OF THE VALVE & OPEN THE VALVE. IN THIS CASE THE FILLER/FOAM INSERT WOULD PREVENT/MINIMIZE THE FLOW OF FUEL THROUGH THE RETENTION OF THE FUEL VIA CAPILLARY ACTION IN USE THE FUEL WOULD BE PUMPED THROUGH THE FILLER/FOAM INTO THE DEVICE.

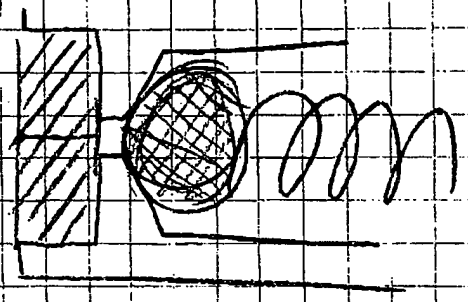
REDACTED

(G)

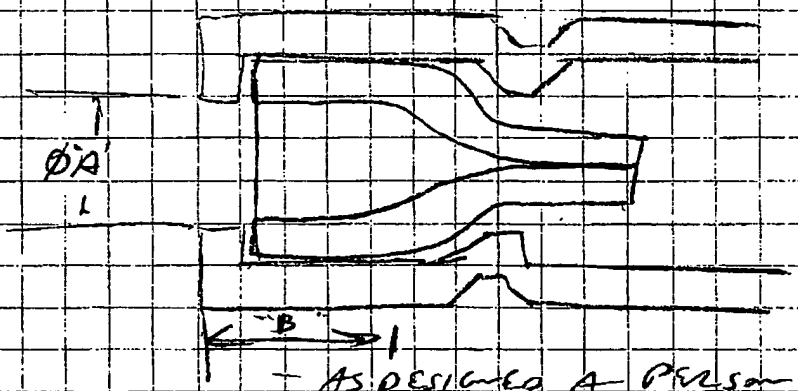
3) ELASTOMERIC MATERIAL (Pg B)

- AS DESIGNED A PERSON COULD NOT REACH THE SEALING PORTION OF THE VALVE BECAUSE OF A INSERTED ELASTOMERIC MAT'L.

REDACTED



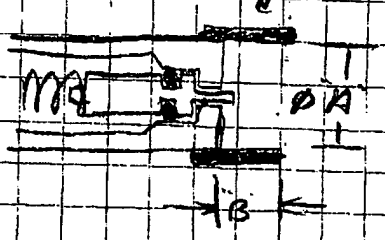
4) RECESSED ELASTOMERIC MATERIAL (Pg E)



- AS DESIGNED A PERSON COULD NOT REACH THE SEALING PORTION OF THE VALVE BECAUSE OF THE SIZES OF 'A' & 'B'

(H)

5) CONT.



- AS DESIGNED A PERSON COULD NOT DEPRESS THE SEALING PORTION OF THE VALVE TO RELEASE FUEL BECAUSE DIA "A" & DEPTH "B" ARE SIZED SUCH THAT NO FINGER COULD REACH THE SEALING PORTION

H.T. Than

From: "H.T. Than" <ht@htthan.com>
To: "Cheryl Dubois" <Cheryl.Dubois@bicworld.com>; "Paul Adams" <Paul.Adams@bicworld.com>
Sent: Monday, June 09, 2003 4:57 PM
Attach: FUELCARTRIDGE WITH CONNECTING VALVE – second draft.pdf
Subject: BIC-016 second draft

Cheryl, Paul:

Attached for your review is the second draft of the patent application entitled "Fuel Cartridge with Connecting Valve." All new shut-off valve embodiments have been included. Due to the new technical disclosures, the claims remain in short hand format. The informal drawings are attached at the end of the document.

REDACTED

H.T. Than

From: "H.T. Than" <ht@htthan.com>
To: "Cheryl Dubois" <Cheryl.Dubois@bicworld.com>; "Paul Adams" <Paul.Adams@bicworld.com>
Sent: Monday, June 30, 2003 4:03 PM
Attach: FUELCARTRIDGE WITH CONNECTING VALVE -- third draft.pdf
Subject: BIC-016 third draft

Cheryl and Paul:

Attached for your review is the third draft of "Fuel Cartridge with Connecting Valve," (Our Ref.: BIC-016). Paul's changes & comments have been incorporated. The drawings are informal, and formal drawings will be ready in about one-week to 10 days.

REDACTED

H.T. Than

From: "H.T. Than" <ht@htthan.com>
To: "Cheryl Dubois" <Cheryl.Dubois@bicworld.com>; "Paul Adams" <Paul.Adams@bicworld.com>
Cc: "Conlan, Sandy" <Sandy.Conlan@bicworld.com>
Sent: Friday, July 25, 2003 10:33 AM
Attach: FUELCARTRIDGE WITH CONNECTING VALVE -- fourth draft.pdf
Subject: Fourth draft of BIC-016

Paul, Cheryl:

Attached is the fourth and final draft of BIC-016. Relevant changes are highlighted in yellow. The document is password protected. I will fax the password separately.

H.T. Than, Esq.
3201 New Mexico Ave., N.W., Suite 350
Washington, D.C. 20016
Tel: 202-363-2620
Fax: 202-363-3490
ht@htthan.com

REDACTED

H.T. Than

From: "Adams, Paul" <Paul.Adams@bicworld.com>
To: "'H.T. Than'" <ht@htthan.com>
Cc: "Dubois, Cheryl" <Cheryl.Dubois@bicworld.com>
Sent: Friday, July 25, 2003 5:58 PM
Subject: RE: Fourth draft of BIC-016

No changes please file this.
Thanks,

Paul Adams
Manager - Lighter Manufacturing and Product Development
BIC USA INC.
GROUP CORPORATE - NYC
500 BIC Drive
Milford, CT 06460
Phone: (203) 783-2652
Fax: (203) 783-2213
Email: paul.adams@bicworld.com

-----Original Message-----
From: H.T. Than [mailto:ht@htthan.com]
Sent: Friday, July 25, 2003 10:33 AM
To: Cheryl Dubois; Paul Adams
Cc: Conlan, Sandy
Subject: Fourth draft of BIC-016

Paul, Cheryl:

Attached is the fourth and final draft of BIC-016. Relevant changes are highlighted in yellow.
The document is password protected. I will fax the password separately.

H.T. Than, Esq.
3201 New Mexico Ave., N.W., Suite 350
Washington, D.C. 20016
Tel: 202-363-2620
Fax: 202-363-3490
ht@htthan.com

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PTO/SB/05 (03-01)
Approved for use through 10/31/2002. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

EF 391483825 US

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	BIC-016
First Inventor	Paul ADAMS
Title	Fuel Cartridge With Connecting Valve
Express Mail Label No.	EF391483825US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. [✔] Fee Transmittal Form (e.g., PTO/SB/17) *(Submit an original and a duplicate for fee processing)*
2. [ ] Applicant claims small entity status. See 37 CFR 1.27.
3. [✔] Specification *(preferred arrangement set forth below)* [*Total Pages* 31]
   - Descriptive title of the invention
   - Cross Reference to Related Applications
   - Statement Regarding Fed sponsored R & D
   - Reference to sequence listing, a table, or a computer program listing appendix
   - Background of the Invention
   - Brief Summary of the Invention
   - Brief Description of the Drawings (*if filed*)
   - Detailed Description
   - Claim(s)
   - Abstract of the Disclosure
4. [✔] Drawing(s) *(35 U.S.C. 113)* [*Total Sheets* 13]
5. Oath or Declaration [*Total Pages* 2]
   a. [✔] Newly executed (original or copy)
   b. [ ] Copy from a prior application (37 CFR 1.63 (d)) *(for continuation/divisional with Box 18 completed)*
      i. [ ] DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. [ ] Application Data Sheet. See 37 CFR 1.76
7. [ ] CD-ROM or CD-R in duplicate, large table or Computer Program (*Appendix*)
8. Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all necessary)*
   a. [ ] Computer Readable Form (CRF)
   b. Specification Sequence Listing on:
      i. [ ] CD-ROM or CD-R (2 copies); or
      ii. [ ] paper
   c. [ ] Statements verifying identity of above copies

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

ACCOMPANYING APPLICATION PARTS

9. [✔] Assignment Papers (cover sheet & document(s))
10. [ ] 37 CFR 3.73(b) Statement *(when there is an assignee)* [✔] Power of Attorney
11. [ ] English Translation Document *(if applicable)*
12. [ ] Information Disclosure Statement (IDS)/PTO-1449 [ ] Copies of IDS Citations
13. [ ] Preliminary Amendment
14. [✔] Return Receipt Postcard (MPEP 503) *(Should be specifically itemized)*
15. [ ] Certified Copy of Priority Document(s) *(if foreign priority is claimed)*
16. [ ] Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. [✔] Other: check

18. If a CONTINUING APPLICATION, *check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:*

[ ] Continuation [ ] Divisional [ ] Continuation-in-part (CIP) of prior application No.: _____ / _____

Prior application information: *Examiner:* _____ *Group Art Unit:* _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

[ ] *Customer Number or Bar Code Label* [redacted] 29626 *(Insert Customer No. or Attach bar code label here)* or [ ] *Correspondence address below*

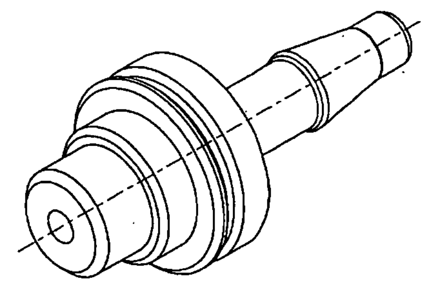
Name	H.T. Than, Attorney-at-law				
Address	3201 New Mexico Avenue, NW Suite 350				
City	Washington	*State*	DC	*Zip Code*	20016
Country	USA	*Telephone*	202-363-2620	*Fax*	202-363-3490

Name (Print/Type)	H.T. Than	*Registration No. (Attorney/Agent)*	38,632
Signature	H. T. Than	*Date*	7/29/2003

Exhibit K, Page 1

BIC CORPORATION - CONFIDENTIAL AND PROPRIETARY

REVISIONS			
SYM	ECN OR CHANGE	DATE	BY



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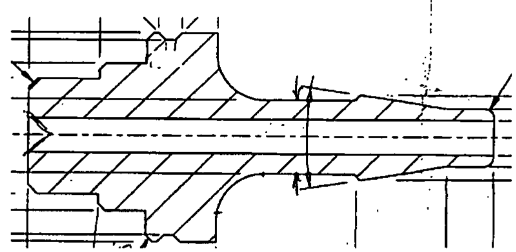

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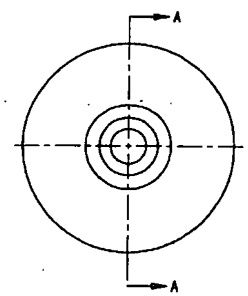

RELEASE	ALL DIMENSIONS ARE IN MILLIMETERS		3RD ANGLE PROJECTION		REQ'D	ON ASSEMBLY NUMBER
DATE:	REF. NUM.	MATERIAL	BREAK ALL SHARP EDGES	DESIGN BY RFS DATE		ASSEMBLY NAME
CHG.#	CAPBARB_3MM	HARDNESS	IMPLIED MILLIMETER TOLERANCES CONCENTRICITY:	APPROV BY - DATE -		PART NAME
REQ'D:	CAPBARB_3MM	FINISH	MARK DWG. NO. ON	BIC CORPORATION MILFORD, CT USA		SCALE 15:1 SHT. NO 1 OF 1
			0 PLACE DEC ± 0.50; 1 PLACE DEC ± 0.25; 2 PLACE DEC ± 0.13; 3 PLACE DEC ± 0.012; ANGLES ± 0.5°			DWG. NO. C-CAPBARB_3MM REV.

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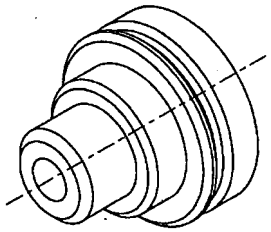
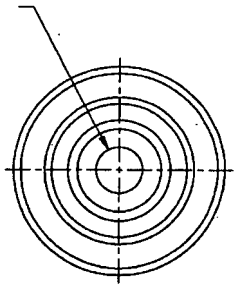
REVISIONS			
SYM	ECN OR CHANGE	DATE	BY





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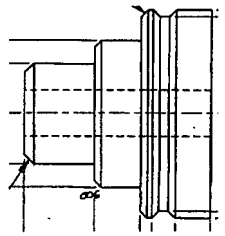

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RELEASE	ALL DIMENSIONS ARE IN MILLIMETERS	3RD ANGLE PROJECTION	REQ'D	ON ASSEMBLY NUMBER
DATE:	REF. MDL / MATERIAL / BREAK ALL SHARP EDGES	DESIGN BY RFS DATE	ASSEMBLY NAME	
CHG.	MATL: ENDCAP3MMSPMGPEEN PER SPECIFICATION PER MDL LEVEL / HARDNESS / IMPLIED MILLIMETER TOLERANCES CONCENTRICITY: 1 PLACE REC ± 0.50	APPROV BY DATE	PART NAME	
REQ'D:	DRAWING: ENDCAP3MMSPMGPEEN PER SPECIFICATION PER MDL LEVEL / FINISH / MARK DWG. NO. ON 1 PLACE REC ± 0.25 2 PLACE REC ± 0.13 3 PLACE REC ± 0.032 ANGLES ± 0.5°	BIC CORPORATION 500 BIC DRIVE MILFORD, CT 06460 USA	SCALE 15:1 SHT. NO 1 OF 1 DWG. NO. ENDCAP3MMSPMGPEEN REV.	

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REVISIONS			
SYM	ECN OR CHANGE	DATE	BY

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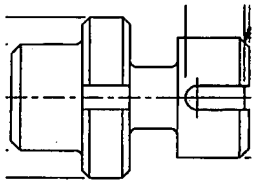

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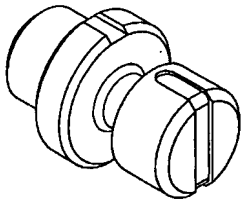

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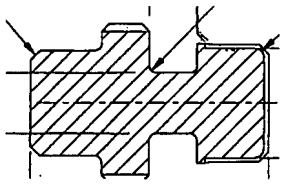

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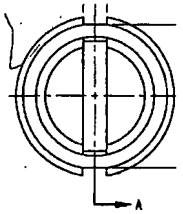

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303/302

RELEASE	ALL DIMENSIONS ARE IN MILLIMETERS	3RD ANGLE PROJECTION	REQ'D	ON ASSEMBLY NUMBER
DATE:	REF. DIM. / MATERIAL / BREAK ALL SHARP EDGES	DESIGNED BY RFS 29-MAY-2003	ASSEMBLY NAME	
CHG.#	MATERIAL / HARDNESS / TAPLIED MILLIMETER TOLERANCES / CONCENTRICITY:	APPROV BY - DATE -	PART NAME	CARTRIDGE PLUNGER
REQ'D:	FINISH / MARK DWG. NO. ON / 1 PLACE DEC ± 1.0 / 2 PLACE DEC ± 0.25 / 3 PLACE DEC ± 0.13 / 4 PLACE DEC ± 0.127 / ANGLES ± 0.5°	BIC CORPORATION 500 BIC DRIVE MILFORD, CT 06460 USA	SCALE 15:1	SHT. NO 1 OF 1
			DWG. NO. C-INTPLUNG23MM	REV. +

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REVISIONS			
SYM	ECN OR CHANGE	DATE	BY

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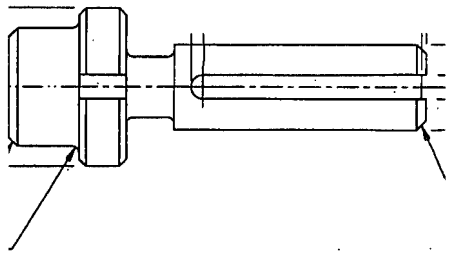

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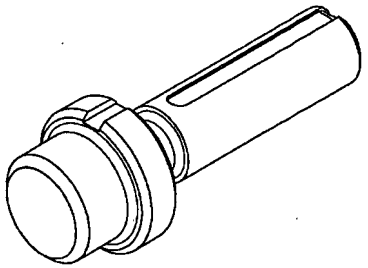

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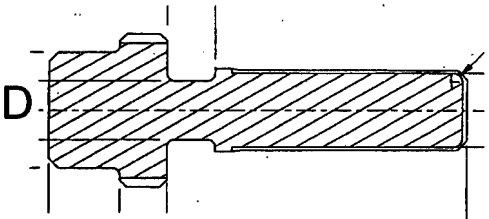

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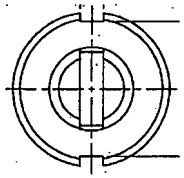

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RELEASE	ALL DIMENSIONS ARE IN MILLIMETERS	3RD ANGLE PROJECTION	REQ'D	ON ASSEMBLY NUMBER
DATE:	REF. DIM. / MATERIAL / BREAK ALL SHARP EDGES / IMPLIED MILLIMETER TOLERANCES	DESIGN BY RFS	DATE	ASSEMBLY MARK
CHG.#	MATERIAL: LIGHTPLUNG2 / HARDNESS / CONCENTRICITY:	APPROV BY -	DATE -	PART NAME
REQ'D:	FINISH / MARK DWG. NO. ON	BIC CORPORATION 500 BIC DRIVE MILFORD, CT 06460 USA	SCALE 15:1	SHT: NO 1 OF 1
			DWG. NO. C-LIGHTPLUNG2	REV.

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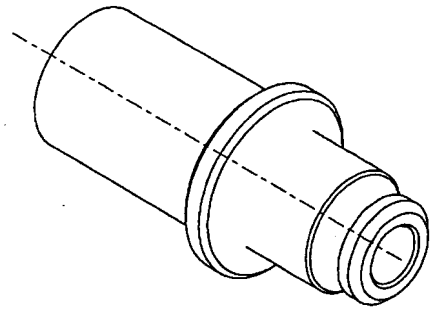
SYM	ECN OR CHANGE	DATE	BY



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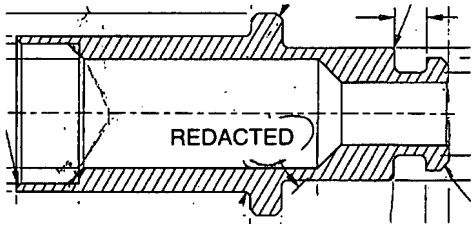

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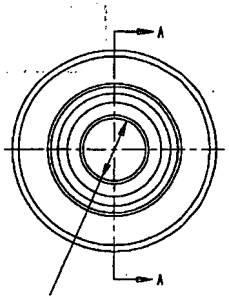

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RELEASE	ALL DIMENSIONS ARE IN MILLIMETERS	3RD ANGLE PROJECTION	REQ'D	ON ASSEMBLY NUMBER
DATE:	REF. DWG. / MATERIAL / BREAK ALL SHARP EDGES	DESIGN BY RFS DATE -	ASSEMBLY NAME	
CHG.#	PART: MALE_INLET / HARDNESS / IMPLIED MILLIMETER TOLERANCES: CONCENTRICITY: -	APPROV BY - DATE -	PART NAME	
REQ'D:	ASSEMBLY: MALE_INLET / FINISH / MARK DWG. NO. ON	1 PLACE DEC ± 0.50; 2 PLACE DEC ± 0.25; 3 PLACE DEC ± 0.13; 4 PLACE DEC ± 0.102; ANGLES ± 0.5°	SCALE 10:1	SHT. NO 1 OF 1
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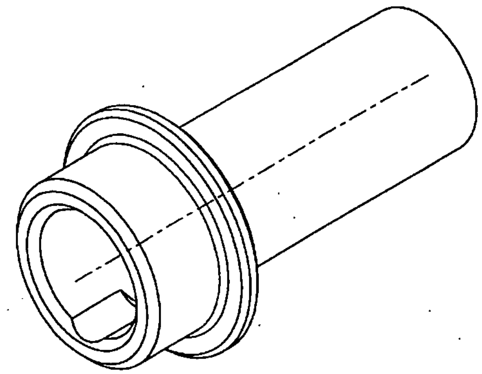
REVISIONS			
SYM	ECN OR CHANGE	DATE	BY



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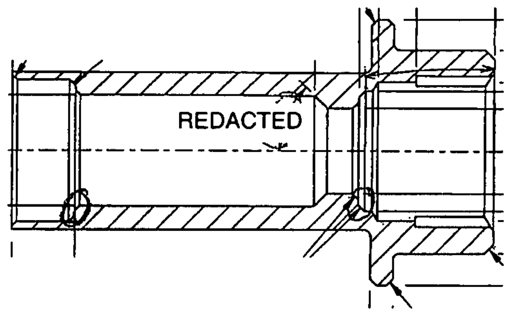

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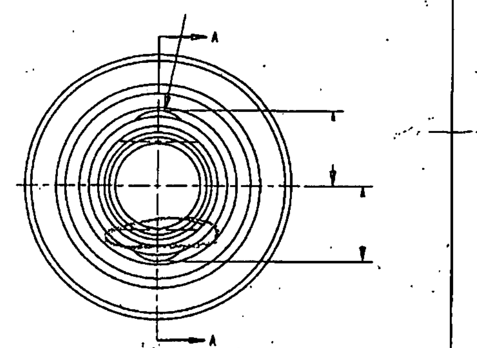

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REDACTED

RELEASE	ALL DIMENSIONS ARE IN MILLIMETERS		3RD ANGLE PROJECTION	REQ'D	ON ASSEMBLY NUMBER
DATE:	REF. NUM.	MATERIAL	BREAK ALL SHARP EDGES	DESIGN BY RFS DATE	ASSEMBLY NAME
CHG. #	PART: PRESSVALVE2	HARDNESS	IMPLIED MILLIMETER TOLERANCES CONCENTRICITY:	APPROV BY DATE	PART NAME
REQ'D:	MODEL: PRESSVALVE2	FINISH	MARK DWG. NO. ON	BIC CORPORATION, 500 BIC DRIVE, MILFORD, CT 06460 USA	SCALE 10:1 SHT. NO 1 OF 1
			ANGLES ± 0.5°		DWG. NO. C-PRESSVALVE2 REV.

H.T. Than

From: bsmith@cad-pdm1.bicmlfcad.com on behalf of Bob Smith [bsmith@cad-pdm1.na.bicworld.com]
Sent: Tuesday, June 17, 2003 10:20 AM
To: ht@htthan.com
Cc: Curello, Andy
Subject: Valve PDF files

Attachments: temp1.pdf; temp2:pdf; temp3.pdf


temp1.pdf (85 KB)

temp2.pdf (85 KB)

temp3.pdf (85 KB)

In temp1.pdf, the valve is shown with the plungers making initial contact. both valves are still closed.

In temp2.pdf, the valve on the left has a weaker spring than the valve on the right which causes it to open first.

In temp3.pdf, as the valve on the left travels to full engagement, it causes the valve on the right to open.

If you need other info or have any questions about these pdf files, please contact Andy Curello. I can not receive incoming email.

--
Bob Smith (Contractor)
Bic Corporation
500 Bic Drive
Milford, CT

FORMAT: BICNLF.MECH1-MM.B-REV01.FRM

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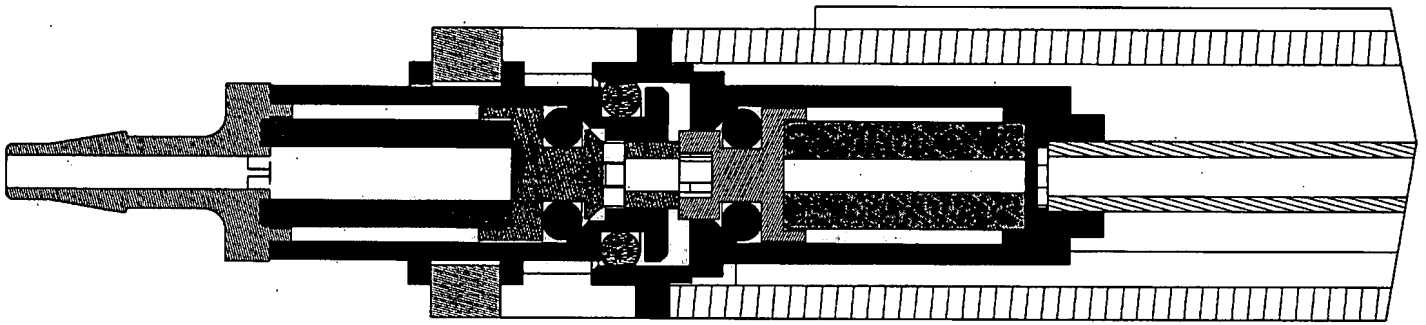
REVISIONS			
SYM	ECN OR CHANGE	DATE	BY



SECTION A-A
SCALE 5:1

Exhibit L, Page 2

RELEASE	ALL DIMENSIONS ARE IN MILLIMETERS		3RD ANGLE PROJECTION	REQ'D	ON ASSEMBLY NUMBER
DATE:	REF. NUM.	MATERIAL	BREAK ALL SHARP EDGES	DESIGN BY: RFS	DATE	ASSEMBLY NAME
CHG. #	ASSEM: CARTASSY PDM VERSION: PDM RELS. LEV.:	HARDNESS	IMPLIED MILLIMETER TOLERANCES CONCENTRICITY:	APPROV BY: -	DATE -	PART NAME
REQ'D:	DRAWING: TEMP PDM VERSION: PDM RELS. LEV.:	FINISH	MARK DWG. NO. ON	0 PLACE DEC ± 0.50 1 PLACE DEC ± 0.25 2 PLACE DEC ± 0.13 3 PLACE DEC ± 0.012 ANGLES ± 0.5°	BIC CORPORATION 500 BIC DRIVE MILFORD, CT 06460 USA	SCALE 1:2	SHT. NO. 1 OF 1
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FORMAT: BICMLF_MECHI-NOM_B-REV01.FRM

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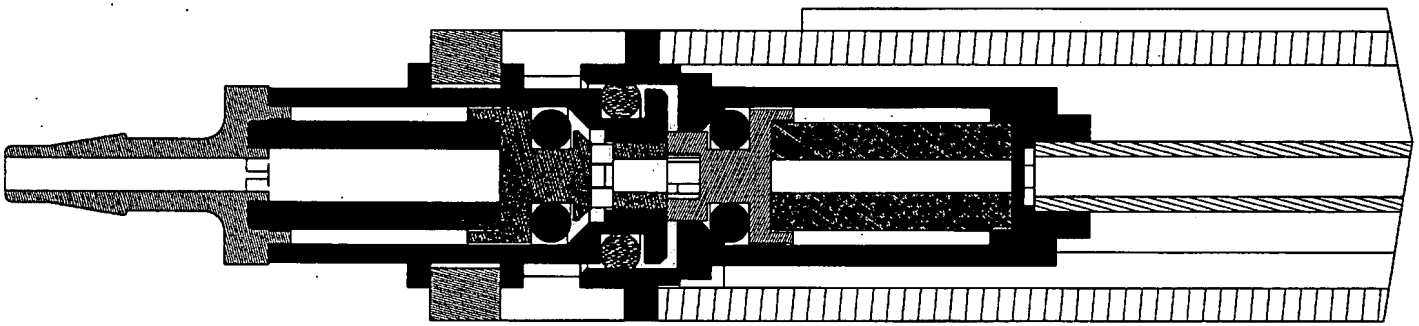
REVISIONS			
SYM	ECN OR CHANGE	DATE	BY



SECTION A-A
SCALE 5:1

RELEASE	ALL DIMENSIONS ARE IN MILLIMETERS		3RD ANGLE PROJECTION		REQ'D	ON ASSEMBLY NUMBER	
DATE:	REF. NUM.	MATERIAL	BREAK ALL SHARP EDGES	DESIGN BY: RFS	DATE:	ASSEMBLY NAME	
	ASSEM: CARTASSY FOR VERSION: FOR REQ'S. LEV.:	HARDNESS	IMPLIED MILLIMETER TOLERANCES	APPROV BY: -	DATE: -	PART NAME	
CHG.#			CONCENTRICITY: -	0 PLACE DEC ± 0.50			
	DRAWING: TEMP FOR VERSION: FOR REQ'S. LEV.:	FINISH	MARK DWG. NO. ON	1 PLACE DEC ± 0.25			
REQ'D:				2 PLACE DEC ± 0.13			
				3 PLACE DEC ± 0.012			
				ANGLES ± 0.5°			

BIC CORPORATION
500 BIC DRIVE
MILFORD, CT 06460 USA

SCALE 1:2 | SHT. NO. 1 OF 1

DWG. NO. B-TEMP | REV.

FORMAT: BICMLF_MECHI-MM_D-REV01.FRM

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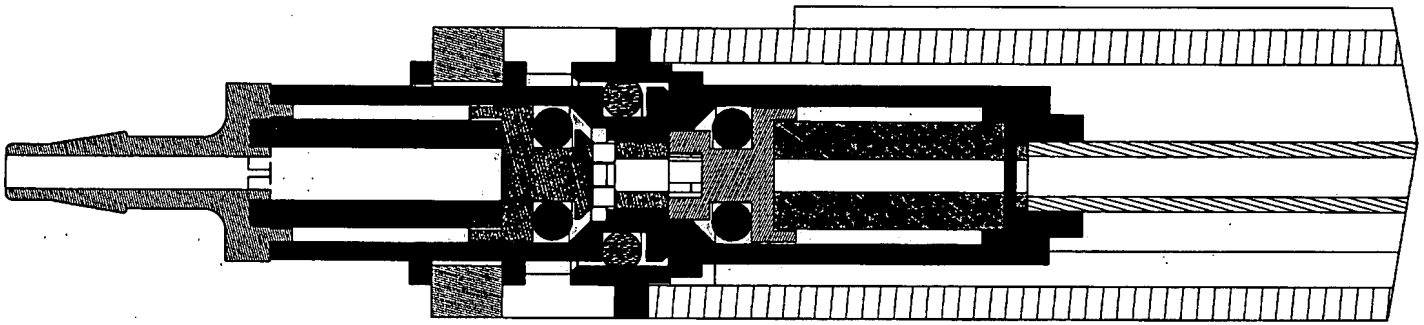
REVISIONS			
SYM	ECN OR CHANGE	DATE	BY



SECTION A-A
SCALE 5:1

Exhibit L, Page 4

RELEASE	*ALL DIMENSIONS ARE IN MILLIMETERS*		3RD ANGLE PROJECTION		REQ'D	ON ASSEMBLY NUMBER	
DATE:	REF. NUM.	MATERIAL	BREAK ALL SHARP EDGES	DESIGN BY: RFS	DATE	ASSEMBLY NAME	
	ASSEM: CARTASSY FOR VERSION: FOR REQ. LEV.:	HARDNESS	IMPLIED MILLIMETER TOLERANCES CONCENTRICITY: -	APPROV BY: -	DATE: -	PART NAME	
CHG. #	DRAWING: TEMP FOR VERSION: FOR REQ. LEV.:	FINISH	0 PLACE DEC ± 0.50 1 PLACE DEC ± 0.25 2 PLACE DEC ± 0.13 3 PLACE DEC ± 0.012 ANGLES ± 0.5°	MARK DWG. NO. ON	BIC CORPORATION 500 BIC DRIVE MILFORD, CT 06460 USA	SCALE 1:2	SHT. NO. 1 OF 1
REQ'D:	WARNING: This print is the property of BIC Corporation and is loaned solely for the purpose of that corporation, and is subject to return upon demand. It is strictly confidential and is loaned with the understanding that neither it nor any information contained therein will be copied, published, or transmitted to others.					DWG. NO. B-TEMP	REV.

R43500

05/01/07

Purchase Order Print

Page - 1

Order Number 361662 000 ON

Branch/Plant 73650

Shipped From HANNES PRECISION INDUSTRY, INC.
12 PLEASANT STREET
NORWALK CT 06855

Ship To BIC CORP. GATE 5,RECEIVING
500 BIC DRIVE
MILFORD CT 06460

Ordered 08/29/03 Freight
Requested 08/29/03 Order Taken By
Delivery machine development

Currency Code USD

Base Currency USD

Line	Rev	Description /Supplier Item	Ordered	UOM	Unit Price	PR UM	Extended Price	Request Date	Order No	Ty
1.000	0	INTPLUNG23MM 100pcs	1	EA	REDACTED	EA	REDACTED	08/29/03		
2.000	0	lightplung2 rev0 100pcs	1	EA		EA		08/29/03		
3.000	0	ENDCAP3MMSPMGPEEN rev0 100pcs	1	EA		EA		08/29/03		
4.000	0	capbarb3mm REV0 100pcs.	1	EA		EA		08/29/03		
5.000	0	MALEINLET rev0 100 pcs	1	EA		EA		08/29/03		
6.000	0	pressvalve2 rev0 100pcs.	1	EA		EA		08/29/03		

Total Order

Sales Tax

Total Order

Term Due Immediately

Tax Rate

REDACTED